

SEMICONDUCTOR DEVICE HAVING JUNCTION DIODE  
AND FABRICATING METHOD THEREFOR

ABSTRACT

A semiconductor device having a junction diode and a fabricating method therefor prevents deterioration of the gate insulating layer during a plasma etching process required for wire formation. The semiconductor device includes a junction diode (a unidirectional or bi-directional junction diode) formed in the substrate at a predetermined distance apart from a gate wire of a transistor. The gate wire is coupled through an insulating layer to a metal wire, and the diode(s) are coupled to a dummy metal pattern formed proximal to the metal wire. In this manner, plasma charge generated during wire formation, is discharged into the semiconductor substrate through the junction diode, preventing accumulation of the plasma charge in the gate insulating layer of the device. Deterioration of the gate insulating layer is thereby avoided.

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